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Ecological Labelling and the World Trade Organization

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Zusammenfassung

Ökologische Kennzeichen gehören zu den marktorientierten Instrumenten der Umweltpolitik und finden international zunehmend Anwendung. Sie enthalten Kriterien über die Herstellungsweise von Produkten, welche bei einer Anwendung auf ausländische Produkte zu Konflikten mit Exportländern führen können. Der Beitrag zeigt auf, worin die Probleme von freiwilligen Kennzeichnungsprogrammen im internationalen Handel liegen. Im Mittelpunkt steht der Vorschlag der Europäischen Kommission, die derzeitige Stellung der ökologischen Kennzeichen gegenüber dem Regelwerk der WTO in einer neuen WTO-Verhandlungsrunde zu klären. Es wird aufgezeigt, wie die in Kennzeichnungsprogrammen gesetzten Standards über Produktionsprozesse zu WTO-Regeln im Verhältnis stehen. Um künftig Konflikte aufgrund von ökologischen Kennzeichen zu vermeiden, sollten die Kennzeichnungsorganisationen bei der Festlegung von Kriterien miteinander international kooperieren und darüber hinaus sollte ein Austausch zwischen der WTO und diesen Organisationen erfolgen.

Abstract

Ecological labels are a market-oriented environmental policy instrument which is applied in a rising number of countries. Products have to meet several criteria in order to qualify for a label. Criteria on production processes of goods can potentially conflict with international trade rules. This article focuses on the current relationship between ecological labels and the WTO legal system. The European Union suggested that this relationship should be more clearly identified and thus be negotiated during a new round of WTO trade talks. We discuss the EU approach and argue that standards on processes and production methods used in eco-labelling schemes are not part of the current WTO legal regime. There is no need, however, to amend the WTO text to comprise eco-labels. Rather, there should be more international co-ordination of standards used in eco-labelling programmes and more cooperation between labelling initiatives and WTO institutions.

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Key words: Ecological Labelling, World Trade Organization, International Environmental Policy, International Trade

1 Introduction

Ecological labels are a market-based environmental policy instrument informing consumers about environmental characteristics of goods. Labels are granted by different private or governmental organisations to producers for different product categories. Many eco-labels not only inform about product quality itself, but also about the whole life cycle, including generation of inputs, production processes, consumption and waste disposal. The number of countries applying eco-labels has been growing constantly¹. However, with increasing international integration, especially growth in trade in goods and services, consumers as well as producers demand compatibility and transparency of labels on an international level. Also, eco-labels from industrialised countries are subject to increasing criticism from developing countries, which regard labels as a new non-tariff trade barrier.

Special attention in this dispute has been paid to rules on environmental externalities from production processes. Labelling programmes in developed countries often apply domestic production standards based on local environmental conditions, which are not relevant for producers from abroad. This makes it difficult for exporters in developing countries to qualify for a label because in most cases environmental conditions in the countries of origin differ substantially from conditions in the importing countries.

The debate on effects of national labels on international trade and the discussion on international labelling standards has been raised by the European Union during preparations for the Third Ministerial Conference of the World Trade Organization (WTO) in Seattle in 1999. The

¹ In 1977 the first eco-label initiated by an official governmental institution was established in Germany. The "Blue Angel" later on served as an example for similar programmes in other industrialised countries (OECD 1997: 25). By 1998 more than 25 countries had introduced new labels (Ottman 1998).

EU suggests that a new round of trade negotiations² should lead to "a clarification of the relationship between WTO rules and non-product related process and production methods requirements and, in particular, of the WTO-compatibility of eco-labelling schemes based on a life-cycle approach" (European Commission 1999).

Ecological labelling programmes use standards on processes and production methods (PPMs) if they work with life-cycle approaches.³ However, the General Agreement on Tariffs and Trade (GATT) does not include production methods as a valid criteria for differentiation of goods. That is, if a foreign good is produced in a different way than the same product in the domestic country both are regarded as "like products" according to Article III GATT. Interpretation of GATT Articles, however, can be subject to changes and the latest ruling of a WTO dispute settlement body moved into a new direction by implicitly tolerating a production method as a differentiation criterion (WTO Appellate Body 1998b).⁴ Similarly, the Committee on Trade and Environment (CTE) of the WTO has been discussing trade effects of ecological labelling, especially of non-product-related processes and production methods.⁵ On this background, the European Union has declared that during a new round of trade talks WTO members should agree "... that there is room within WTO to use such marked based, non-protectionist instruments as a means of achieving environmental objectives and of allowing consumers to make informed choices." (European Commission 1999: 15).

There are two questions related to this claim. First, are non-product-related PPM-standards from ecological labelling schemes covered by WTO rules? Second, is the WTO an adequate

² In Seattle a new "Millennium-Round" of trade liberalisation talks was supposed to be initiated. Although agreement on a new agenda failed, the WTO keeps on working on a new round to be set up.

³ Life-cycle analysis is not an internationally harmonised approach. It is used on a country-by-country basis and depends on the labelling programme. Most schemes simply pick certain environmental effects from production. A complete life-cycle assessment is difficult to conduct and also expensive (Mullet 1997: 383).

⁴ The Appellate Body found that an import ban that aims at protecting a migrating species is a legitimate measure if production methods in the country of origin contribute to extinction of this species (Biermann 1999).

institution to co-ordinate or regulate ecological labels? We start in chapter two by introducing different kinds of eco-labels and their potential effects on trade. Then, in chapter three we investigate the current relationship between WTO-rules and eco-labels. Finally, in chapter four we discuss how a clarification of the relationship between eco-labelling and international trade regulation as well as enhanced international co-ordination could be achieved. Chapter five concludes with a short summary.

2 Ecological Labels and Trade Effects

2.1 Types of Ecological Labels

Ecological labelling is "the use of labels in order to inform consumers that a product is determined by a third party to be environmentally more friendly relative to other products in the same category" (UNCTAD 1994: 5). According to the International Organization for Standardization (ISO) there are three types of ecological labels, of which only type I matches the definition stated above:⁶

- *Type I* is the eco-seal awarded as a license and based on a labelling programme.
- *Type II* is the self-declaration claim made by producers, importers, and retailers on products and services.
- *Type III* is the report card label, which gives information according to fixed indices, similar to general consumer information given on product packages.⁷

⁵ Ecological labels are discussed under Item 3b on the CTE agenda. Subject to analysis is "The relationship between the provisions of the multilateral trading system and requirements for environmental purposes relating to products, including standards and technical regulations, packaging, labelling and recycling" (WTO – CTE 1997).

⁶ Cited from OECD 1997: 9f

⁷ Report cards are granted e.g. by the Scientific Certification System (SCS) in the US (Mullett 1997, 384).

Type I (eco-seals) and type II (self-declaration) are the majority of labels applied. Eco-seals are granted by both private and state institutions. Self-declarations, instead, are made by firms or associations of firms that are interested in providing extra environmental information on their goods and services. They also serve as marketing activities and are not based on any private or governmental labelling programme.

This paper focuses on eco-seals. The following table shows some examples of eco-seals for three categories. The categories distinguish compulsory from voluntary schemes and governmental programmes from private initiatives.⁸ However, it should be kept in mind that in some initiatives both NGOs and governments are involved.⁹

Table 1 Examples for Different Types of Ecological Labels

	governmental	private
mandatory	<i>NON-GM*-Label</i> (Australia/New-Zealand) <i>Energy Guide</i> (USA)	---
voluntary	<i>Blauer Engel</i> (Germany) 2 EU-Ecolabel Award Scheme	<i>Green Seal USA</i> <i>Flower Label Programme</i> (Germany)

*genetically modified

The differentiation between governmental and private labels is important with respect to the WTO legal system. If a country introduces an official labelling programme, and other countries feel discriminated, the latter could ask the WTO dispute settlement bodies to rule on this issue. Such direct intervention is not possible if a label is set up by a private organisation. Furthermore, voluntary and compulsory labels are treated differently under WTO rules.¹⁰

⁸ Several programmes are presented in detail in OECD 1997. According to the WTO Secretariat, the most comprehensive survey on seals was conducted by the Environmental Protection Agency (EPA) in the United States in 1998 (EPA 1998).

⁹ These mixed schemes are called "quasi-governmental" by the EPA (WTO-CTE 2000).

¹⁰ To date, there are only few compulsory schemes, e.g. the Environmental Protection Agency (EPA) of the US introduced labelling and registration for pesticides ("This Pesticide is Toxic to Wildlife").

They are defined as different kinds of technical barriers to trade which will be explained in more detail in chapter three.

2.2 Trade Effects of Ecological Labels

Effects of ecological labels on trade and competition can occur in different ways. Firms in domestic markets choosing an ecological seal for their products can gain additional market share depending on the factors that influence the demand for their product.¹¹ In order to avoid discrimination among competitors, all firms must have equal access to information on labelling programmes and procedures. This should also hold for foreign suppliers. However, opportunities for foreign firms can be subject to a number of direct and indirect restrictions. Direct discrimination often occurs when foreign firms are ignored by domestic organisations making up a new labelling programme. Indirect discrimination can be found due to production methods that are based on domestic environmental conditions and preferences (UNCTAD 1995: 6). The domestic standards on production methods are not always adequate for conditions in exporting countries. In many cases, developing countries export resource-intensive products (e.g. agricultural products or textiles) that have a high share in total exports. If exporters cannot meet the criteria and consumers in industrialised countries tend to shift their demand away from unlabelled goods, this will eventually lead to losses in market shares and to trade distortions.

The major problems for foreign exporters are that they have to gather information on foreign labelling programmes (Michaelowa 1997; OECD 1997) and that some need to invest in pro-

¹¹ The change in demand depends on price levels within an industry, the price elasticity of demand, on the relationship between price and quality in that product category, and last but not least on the number of substitutes in the market (da Motta Veiga 2000). All these factors contribute to the extent to which a producer is able to increase prices due to higher costs from environmentally friendly production.

duction technologies if they want to comply with certain labelling criteria.¹² These costs are crucial for small and medium sized firms in developing countries, and are a major reason why environmentally friendly processes are not applied (da Motta Veiga 2000). On the contrary, multinational firms have access to information networks and transfer of new technologies so that labelling programmes are less costly.

Analyses on trade effects of ecological seals yield differing results. The OECD (1997) investigated eight selected programmes and did not find severe trade effects. However, this was due to the limited selection which contained only few labels on resource-intensive categories like textiles, leather or paper.¹³ Nevertheless, the OECD states that there is a potential for trade effects. Other studies pronounce that the scope of labels is increasing continuously and that this contributes to future effects on trade, especially if labels are used unilaterally or by an integrated trade block like the EU (da Motta Veiga 2000). An evaluation of labelling programmes among NAFTA members (USA, Canada, Mexico) finds that criteria need to be harmonised to avoid that eco-labels act as trade impediments.¹⁴

The trade-related problems with ecological labels have been subject to discussion in the CTE since 1995. They can be summarised as follows:

- First, life-cycle analysis is applied in a selective way, most labels are granted on the basis of production methods (WTO - CTE 1997);

¹² UNCTAD pronounces that labelling can ask for certain pre-determined production technologies. Producers in exporting countries will have to invest first, while their competitors in the country introducing a label already use that environmentally friendly technology (UNCTAD 1994, 1995).

¹³ The OECD chose governmental (EU *Eco-Label Award Scheme*; *Nordic Swan* of the Scandinavian countries, *Blauer Engel*, Germany; *Japanese Eco Mark*; *NF Environnement*; France) and private schemes (*Swedish Environmental Choice*, *US Green Seal*, *Canadian Environmental Choice Programme*) (OECD 1997).

¹⁴ Cited in WTO-CTE (2000).

- Second, the choice of labelling criteria is based on national conditions without consideration of foreign suppliers and their national environmental situation. This could lead to an indirect extraterritorial application of domestic environmental policy measures.¹⁵
- Third, many suppliers face a rising number of labels introduced by governmental, but also by private (non-governmental) organisations. This could lead to a loss of transparency and to a loss of governmental control over labelling schemes.¹⁶

In order to judge, whether WTO-rules offer help with respect to these problems we need to discuss the legal status of labelling criteria under the WTO-system.

3 Ecological Labels under WTO-Rules

Ecological labels are not explicitly subject to WTO-rules. There are, however, ways to apply WTO-rules on those standards underlying eco-labelling programmes. Thus, the analysis focuses on criteria used in these schemes.

Declaring a product as environmentally friendly can be based on three grounds. First there are direct product criteria, which address the characteristics of a product during its consumption (consumption externalities, e.g. emissions). Second, there are product-related criteria, which address characteristics that are determined by the way a product is produced (also consumption externalities, e.g. toxic incorporated in product materials). The third category are non-product-related criteria, which are not related to any material characteristic of a good (production externalities, e.g. local water pollution). The latter two categories are both standards

¹⁵ CTE also states that if labels developed by different countries with different environmental conditions are based on the same criteria the question remains how to compare and apply different criteria. There is a case for more transparency of programmes and co-operation with trade partners in the process of selecting criteria (WTO - Trade and Environment Division 1999).

¹⁶ A Colombian study on flower exports showed significant trade effects caused by private labels. The export share of flowers is high in Colombia. The major problems Colombian flower growers had with the private labelling scheme were: a) lack of control of the programme by international institutions and lack of compliance with international standards; b) no co-operation on minimum criteria for labels and no consideration of regional differences; c) loss of transparency and reliability due to different labels originating from different importing countries (WTO- CTE Document (1998)).

on processes and production methods (PPM-standards) but are treated in a different manner under WTO-rules.

In order to investigate applicability of WTO-rules on labelling criteria we will start with the Agreement on Technical Barriers to Trade (TBT-Agreement), which regulates standards and other technical barriers to trade. Next we will look at the basic principles of GATT that could be relevant if no specific TBT-rules exist. Also, we will distinguish between voluntary and mandatory governmental schemes in order to point out the different scope of relevant WTO-rules. We briefly discuss the special problem of regulating private initiatives under the WTO.

3.1 Agreement on Technical Barriers to Trade (TBT-Agreement)

An investigation of WTO-rules has to begin with the Agreement on Technical Barriers to Trade (TBT-Agreement) as part of the GATT that addresses regulations on standards and other technical barriers to trade. The TBT-Agreement was established in 1979 during the Tokyo-Round. It was first named *Standards Code* and was amended during the Uruguay Round when it was renamed (Chang 1997). The purpose of the TBT-Agreement is to control national standards and regulations in order to avoid or minimise negative effects on trade. The TBT-Agreement states that its members are supposed to co-ordinate the introduction and application of national standards and of technical rules on an international level. A system of mutual information and consultation supports transparency of national measures.¹⁷

During the Uruguay-Round two important changes were made to the TBT-Agreement. First, the preamble was broadened to include parts of Article XX (b) GATT (see next chapter) in stating that "no country should be prevented from taking measures necessary [...] for the protection of human, animal or plant life or health, or the environment [...]", however, these

¹⁷ From its enforcement on 1st January 1995 until 1999 there were 2,300 notes made to the Committee on Technical Barriers to Trade, CTBT, 11 per cent (around 250) contained information on environmental protection measures, also

measures must not lead to "arbitrary or unjustifiable" discrimination between countries (Preamble, TBT-Agreement 1994). The policy goals for which measures could be taken were amended by "the environment". Second, the definitions of technical regulations and standards were enhanced to comprise processes and production methods (PPMs) (Annex 1.1 and 1.2 to the TBT-Agreement 1994).

A technical regulation is defined as:

"Document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method." (Annex 1.1, TBT-Agreement 1994).

The definition of a standards is:

"Document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method." (Annex 1.2, TBT-Agreement 1994).

It is obvious that standards are voluntary, and technical regulations are compulsory. Therefore, criteria for voluntary eco-labelling can be interpreted as standards and those in mandatory schemes as technical regulations.

From neither definition above it becomes clear, whether *non-product-related* standards, which are applied in life-cycle labelling schemes, are subject to TBT-rules. The definition in Annex 1.2 TBT names "products or related processes and production methods". An interpretation has to consider the negotiation history of the agreement. Chang (1997: 147) states that non-product-related PPMs were explicitly excluded, already during the negotiation of the amendment to the TBT-Agreement, and thus cannot be considered when interpreting the text. During negotiations of the Uruguay-Round, negotiators used the expression "or related" in order to exclude "non-related" processes and production methods. According to these findings, non-

ecological labelling (WTO – Trade and Environment Division 1999, No. 90). A list of environmental labelling/marketing notifications under the TBT-Agreement can be found in WTO-CTE (2000).

product-related criteria in eco-labelling schemes are not covered by TBT-rules for standards and technical regulations and are therefore to date not a valid criterion to differentiate otherwise like products.

Should there be any dispute, the TBT-Agreement would only cover those parts of labelling programmes that determine product or product-related criteria. Such criteria could then be justified for both voluntary and obligatory labels with reference to the TBT preamble. More specifically, for compulsory schemes a country can refer to Article 2.2 TBT which names "the environment" as a legitimate objective for which a certain degree of trade restrictions could be justified.¹⁸ However, also the requirement of non-discrimination between like products from national origin and abroad (Article 2.1 TBT) needs to be fulfilled.

3.2 GATT-Rules

Additionally to the TBT-Agreement, it needs to be checked whether GATT-rules may potentially be violated by voluntary or mandatory ecological labels and whether any applicable rulings by the WTO dispute settlement bodies exist. Four articles are relevant for this:

- most-favoured nation clause in Article I,
- non-discrimination in Article III,
- marks of origin in Article IX and
- general exceptions in Article XX.

3.2.1 Most-Favoured Nation Clause

The most-favoured nation clause of Article I:1 GATT states that all privileges and advantages for import or export granted by one contracting party to any other WTO member must be granted "immediately and unconditionally" to all other contracting parties. Mexico used this

¹⁸ "Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive

clause during its Tuna-Dolphin-conflict against the compulsory "dolphin-safe"-label in the United States, because Mexico felt discriminated by the label.¹⁹ The GATT-panel, however, rejected the claim on the ground that the label was granted irrespective of the country of origin of the canned tuna (Altemöller 1998: 254; Chang 1997: 150). Thus, whether or not an eco-label contradicts the most-favoured-nation principle depends on whether or not one country favours or discriminates against another country selling the labelled product (Chang 1997: 151; Tietje 1995: 142f).²⁰

The information given by a label on the production method (non-product-related PPM) is not relevant for the most-favoured-nation clause. The clause is only applicable if products from a single country are subject to discrimination.

3.2.2 Non-discrimination

Article III:4 GATT requires that products imported from another WTO-member should be treated

"... no less favourable than [...] like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use."

To date, there are no statements by WTO dispute settlement bodies on Article III:4 or on trade effects of non-product-related labelling criteria (Chang 1997: 152; Michaelowa 1997: 568).

There is, however, a panel decision on the term "like products". This term is also included in Article I GATT and Article 2 TBT-Agreement. The WTO-panel *Japan – Taxes on Alcoholic*

than necessary to fulfil a legitimate objective, [...]. Such legitimate objectives are, inter alia, [...] protection of human health or safety, animal or plant life or health, or the environment.[...] (Article 2.2, TBT-Agreement, GATT 1994).

¹⁹ The US imposed an import sanction on Mexico, because Mexico did kill more dolphins when catching tuna than it is allowed according to the US Marine Mammal Act (1972). Two panels decided that the unilateral application of this law on exporters is not allowed under GATT-rules (GATT-Tuna Panel 1991 and 1994). Furthermore, domestic US law also requires labelling of tuna products as "dolphin-safe" (Dolphin Protection Consumer Information Act). Mexico claimed that the "dolphin-safe"-label discriminated against Mexico as a country fishing in the Eastern Tropical Pacific (Chang 1997).

²⁰ The panel could not find the stated influence of the US-government on application of dolphin-safe products and therefore could not find obstruction of the most-favoured nation principle. Labelling criteria were fixed under the Dolphin Protection Consumer Information Act, DPCIA) How far involvement of governments could go is open (Chang 1997: 150f).

*Beverages*²¹ found that the definition of "like products" refers to characteristics of goods, but not to PPMs (Chang 1997: 153, FN 76), i.e. non-product-related PPMs are not considered if product characteristics are investigated. Identical goods produced by different methods are "like products". Thus, labels which are supposed to differentiate goods in view of PPMs do not comply with this interpretation. The latest panel (Shrimp-Turtle-Panel 1998), however, implicitly allowed a production method to serve as a criterion for differentiation, if the method contributes to the extinction of a migrating species (Althammer et al. 2001).

Future conflicts among WTO members are possible with respect to labels granted under the condition that a product was produced using a certain environmentally friendly technology. A first conflict over a mandatory application of PPMs arose when the Austrian government introduced an obligatory label for tropical timber from Asia in 1992, which required sustainable forestry for wood production. The dispute between Malaysia, other Asian countries and Austria, however, did not lead to a panel ruling, because the parties managed to find a settlement (Mullet 1997: 393; Sucharipa-Behrmann 1994: 56). Nevertheless, in the light of the *Taxes on Alcoholic Beverages* decision, the application of the sustainable forestry criterion does not seem to be in accordance with Article III: 4, because the forestry method is not a characteristic of the wood itself.

Furthermore, another point of Article III: 4 has to be checked. The national treatment rule requires that every imported good is accorded the same treatment with respect to conditions of competition as like products from domestic producers. This treatment includes all laws and obligations but does not relate to consumer behaviour. If consumers refuse to buy a product because the country of origin does not apply a certain production method, there is discrimination, but Article III: 4 is not applicable. Also Article III: 4 prescribes that equal treatment should cover "... all laws, regulations and requirements affecting their internal sale, offering

²¹ WTO - Alcoholic Beverages Panel (1996).

for sale, purchase...". According to Chang (1997: 153) and Tietje (1995: 140) the term 'affecting' has been interpreted very broadly. Related to this term there is a scope for non-compliance with national treatment obligations under Article III: 4.

In the timber conflict the labelling scheme required sustainable forestry as a criterion although there are no international standards on this production method. Thus, the country imposing this requirement through a mandatory label implicitly defined the production method, i.e. it set a unilateral standard (Jha and Zarrilli 1994: 69). The ASEAN-countries complained to the CTBT (Committee on Technical Barriers to Trade) that both the most-favoured-nation principle and the national treatment were violated because other types of wood, whether imported or produced in Austria, were not subject to the labelling scheme. Also, they accused Austria of not having informed the CTBT about the programme before it was set in force. For that reason, other countries did not have a chance to make a statement (Sucharipa-Behrmann 1994). If the Austrian label would have been based on voluntary participation of foreign producers, the violation of national treatment requirements would not have been that obvious. The choice, whether or not to comply with the labelling requirements would have been with the Asian producers and timber without labels would not have been banned. In that case, however, the argument still holds that foreign wood is discriminated against, especially as no tropical timber grows in Austria.

Thus, the discrimination between products through labels can contradict obligations under Article III: 4 GATT, if certain conditions apply with respect to the character of labelling schemes and their enforcement.

3.2.3 Marks of Origin

Another GATT rule that could apply to ecological labels is Article IX on marks of origin. As stated by the first panel in the Tuna-Dolphin dispute, Article IX refers to marking of imported

products according to their country of origin. Article IX, however, does not refer to marking of products in general (Tietje 1995: 142, Altemöller 1998: 254). Eco-labels, however, indicate how a product affects the environment during the production and consumption period regardless of the country of origin. Thus, Article IX GATT is not a rule that can be applied, and it does not affect the legality of eco-labelling under the WTO.

3.2.4 Exceptions from GATT Principles According to Article XX

Article XX GATT lists exceptions from basic GATT principles. In case a country invokes a claim that a foreign eco-labelling scheme violates basic GATT principles – like Malaysia and others did against the Austrian timber label - the accused country could refer to Article XX. Measures introduced for environmental purposes are subject to the chapeau of Article XX and to Article XX (b) and (g). There are three important requirements stated in Article XX. First, the chapeau demands "no arbitrary or unjustifiable discrimination" and second, "no disguised restriction" on trade due to a measure. Third, according to section XX (b) a measure must be deemed "necessary" or, according to section XX (g) "relating to the conservation of exhaustible natural resources".²² The term "necessary" is not defined in the text.²³ The party invoking a measure has to prove that the measure falls under the exceptions of Article XX.

The interpretation of Article XX with respect to ecological labelling by a WTO dispute panel is not available to date and has to stay hypothetical. A justification of restrictions to trade can be derived from both sections (b) and (g). However, if labelling itself is not obligatory, it

²² "Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

[...] (b) necessary to protect human, animal or plant life or health;

[...] (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption; [...]" Article XX: General Exceptions. GATT 1994.

²³ A specification of the necessity of a measure is given in Article 2.2 of the TBT-Agreement with respect to technical regulations: "technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective,

should be difficult for an appellant to prove direct or indirect trade discrimination (see chapter 2.2). If it is obligatory, like the Austrian timber label, and a dispute settlement is invoked, the accused country would have to prove that one or more of the reasons for exception in Article XX GATT hold. It is open whether or not the timber labelling scheme could be defended under section (b) as "necessary" or under section (g) as a measure relating to an exhaustible natural resource (e.g. timber itself and global climate) and whether it could pass the requirements of the chapeau. In any way, it would be crucial to show that there is no other, less trade restrictive way to achieve the goal (i.e. more sustainable forestry in Asia) and that the label is not an unfair discrimination (e.g. favouring timber from other tropical forests).

3.3 Private Ecological Labelling Programmes

Ecological labelling can be initiated by private organisations without any governmental monitoring or co-operation. There are numerous private initiatives – national and international – that grant eco-labels, e.g. the German "Colombia Flower Declaration". Private labels have been particularly criticised by developing countries, which complain that the seals are introduced without any international co-operation and that they lead to discrimination. Obviously, flower exports from Columbia decreased substantially after the introduction of private labels.²⁴ However, unlike in the Austrian timber label case, there is no direct way to consult the WTO because negative effects on trade flows alone do not entail an application of WTO-rules (Chang 1997: 157). Only governments are contracting parties to the WTO and no member can appeal to a WTO body to accuse private actors.

taking account of the risks non-fulfilment would create. Such legitimate objectives are, inter alia: [...] protection of human health or safety, animal or plant life or health, or the environment. [...]" See Althammer et al. 2001.

²⁴ Greenpeace for example asks for "Distinctions between products that are based upon Production or Processing Methods (PPMs) related to the environment should be recognised by the WTO. WTO must recognise that these PPM-based distinctions can be applied [...] also through appropriate national measures (e.g., eco-labelling and other labelling schemes [...])." (Greenpeace International 1999).

Nevertheless, those countries affected by private labels can still try to contact the home country's government of labelling organisations and ask for help. Whether or not it is useful and appropriate to ask the WTO to monitor these conflicts is a question for further discussion.²⁵

3.4 Results

The investigation of relevant WTO-rules shows that non-product-related criteria used in governmental eco-labelling programmes are not explicitly regulated under the WTO-legal regime. It can be derived that a distinction of products on the basis of their production method is not allowed in general, but there are potential ways to use production methods in environmental labelling schemes. In cases of trade-distorting life-cycle labels, Article XX GATT and rules from the TBT-Agreement could become relevant. Non-discrimination or necessity has to be proven, in case PPM standards are enforced through trade-restricting labels. Although one conflict on a mandatory label could be observed, there is no WTO panel decision on labels to date. In cases where labels are voluntary it should be more difficult to prove a violation of WTO-rules. Labels from private initiatives are even harder to control through WTO mechanisms, because WTO rules are tailored for international official regulation rather than for private programmes.

4 Perspectives for Ecological Labelling Under WTO-Rules

The lack of WTO-rules and the rising number of labelling initiatives in industrialised countries, but also growing interest in such measures in developing countries lead to the question, how this environmental policy tool can be used in accordance with the world trade regime and its general goals. A first suggestion is to define the term "like products" in such a manner that

²⁵ Colombia claims that private organisations should accept the Code of Good Practice of the TBT-Agreement (WTO -

production methods are allowed as a discrimination criterion under WTO-law.²⁶ A second proposal made in the CTE by several countries (amongst others by Canada, Brazil, Chile) is that all WTO-members should apply the *Code of Good Practice for the Preparation, Adoption and Application of Standards* from the TBT-Agreement to all labelling programmes (WTO-CTE 1997).²⁷ A third point which was proposed by representatives of developing countries (e.g. Egypt, who speaks on behalf of North-African states) is to increase co-operation in standard-setting, technical assistance, harmonisation and mutual recognition (WTO-CTE 1998).

4.1 Defining "like products"?

The first idea to achieve a clearer relationship between non-product-related criteria in eco-labelling schemes and WTO-rules would be to define the term "like products". E.g. a definition could be placed in the TBT-Agreement or in other parts of the legal regime, in such a way that non-product-related PPMs are allowed as a criterion for discrimination if certain conditions are met. However, finding an agreement on a definition of the term "like products" would be very difficult. Considering the basic GATT principles, especially the one of non-discrimination, WTO members would most likely agree on a definition equivalent to the rulings in disputes settlements up to date²⁸, i.e. a definition excluding non-product related PPM-standards. In that case, allowing the use of non-product related PPMs could only be subject to exemptions in special cases like the protection of the environment, human, animal or plant lives or health (referring to Article XX and TBT). With such a definition the current situation would not be improved.

CTE Document 1998 and WTO - Trade and Environment Division 1999: No 93).

²⁶ Greenpeace for example asks for "Distinctions between products that are based upon Production or Processing Methods (PPMs) related to the environment should be recognised by the WTO. WTO must recognise that these PPM-based distinctions can be applied [...] also through appropriate national measures (e.g., eco-labelling and other labelling schemes [...])." (Greenpeace International 1999)

²⁷ This is supported by Norway and South Korea, who demanded in the CTE that there should be rules within the WTO-system on labelling programmes, like they are designed by UNEP and ISO (WTO – CTE 1999).

The major problem in finding a definition is related to political aspects. Developing countries would strongly object proposals which include non-product-related PPMs, because they expect those to be used for "eco-protectionism". Considering that ecological labels contribute only modestly to fighting global environmental problems, and that conflicts due to life-cycle approaches are not that severe yet that they invoke WTO dispute procedures, it does not seem appropriate to proceed in this direction. Thus, in view of potential problems with ecological labels a definition of "like products" is not worth severe political tension.²⁹

4.2 Co-ordination and Co-operation Under WTO-Rules

Another idea that could help to improve both, co-operation among national labelling organisations from different countries and co-ordination of criteria that underlie labelling schemes, is to implement the obligation for all – private and governmental – organisations to follow the rules of the *Code of Good Practice for the Preparation, Adoption and Application of Standards* of the TBT-Agreement (Annex 3, TBT). All standardising bodies within the territory of a WTO-member can accept the code on a voluntary basis.³⁰ Standardising bodies are supposed to accept a number of "substantive provisions". Obligations comprise e.g. that standards shall not create unnecessary trade barriers, that their creation should be conducted under consideration of existing international standards, and that standardising bodies should publish a work programme and other WTO-members should be asked for comments on a regular basis. However, there is a problem with the obligation to "accord treatment to products originating in the territory of any other Member of the WTO no less favorable than that accorded to like products of national origin" (part D, Annex 3).

²⁸ WTO - Alcoholic Beverages (1996).

²⁹ There are, however, other reasons, like the use of PPMs in Multilateral Environmental Agreements, which could lead to a need for a clear definition of "like products".

³⁰ Standardising bodies comprise government bodies on a central or local level, and also non-governmental bodies. If an organisation wishes to accept the Code, a notification will be given to the ISO/IEC Information Centre in Geneva (TBT-Agreement, Annex 3.C).

The application of the Code of Good Practice to labelling programmes has been discussed in the Committee on Technical Barriers to Trade (CTBT) (WTO - Trade and Environment Division 1999: No 93). The CTBT already decided to improve the Code of Good Practice after the first Triennial Review of the TBT-Agreement. One change is a broadened obligation to publish all standards that are planned for voluntary labels. The CTBT also stated that "...without prejudice to the views of Members concerning the coverage and application of the Agreement, the obligation to publish notices of draft standards containing voluntary labeling requirements under paragraph L of the Code is not dependent upon the kind of information provided on the label" (WTO - Trade and Environment Division 1999: No 94). Thus, non-product-related standards can be subject to notification. Yet, this does not imply that they are accepted under the TBT-Agreement.

How do these attempts for co-ordination and co-operation under WTO-rules match the purpose of ecological labels? There are a number of advantages related to the Code of Good Practice, for example, the rights and obligations to notify other parties about new standards. A few clauses of the Code, however, are not fully compatible with the concept of a ecological labels. Eco labels address problems of the environment in the first place. Especially part D, which prohibits discrimination, does not help to further the labelling approach, and refers again to the term "like products" which is not defined clearly. These points contradict the idea of eco-labels that use life-cycle approaches to show different environmental impacts of seemingly identical products.

Nevertheless, the publication of work programmes of standardising bodies is one requirement of the Code that would help to increase transparency on future labelling initiatives, regardless of the criteria applied. It can be useful for WTO-members to increase communication on this regard in order to avoid conflicts on labelling schemes. Brazil made a first move into that direction by notifying the CTBT on first drafts of the *Brazilian Green Seal*. Interested parties

could give information on local conditions which would be considered by Brazil in developing the label (WTO-CTE 1997).

4.3 Mutual Recognition and Harmonisation Outside the WTO

A third way to improve the international compatibility of eco-labelling with the international trade regime is to increase co-ordination of programmes beyond the WTO-framework. Both mutual recognition of labels and harmonisation of criteria can contribute to the reduction of conflicts between environmental policy and trade. Most countries have different environmental conditions or their populations reveal different preferences for environmental quality, or both. Therefore, it is efficient and ecologically effective to choose criteria according to national circumstances. Also, national labels should be subject to mutual recognition on an international level. This would reduce negative indirect effects on trade flows. However, mutual recognition entails another pitfall. A rising number of labels in identical categories using different criteria contributes to a loss of transparency and to increasing information costs for consumers and producers. Therefore, there is a need for both harmonisation of criteria on the international level and mutual recognition of labels from different regions.

There are two reasons why co-ordination outside the WTO-legal system is positive from a trade perspective. First, legal conflicts brought up under WTO-law over the use of non-product-related criteria can be avoided, if these criteria are agreed upon among labelling organisations of several countries and are acknowledged by the WTO.³¹ The TBT-Agreement demands that national technical regulations should as far as possible be based on international standards (Article 2.6) and encourages in its preamble the development of international standards (TBT-Agreement 1994). This approach would avoid conflicts like the ones over tropical timber (Austria – Malaysia) or flowers (Colombia – private labels from Germany), in which

³¹ This procedure has been suggested by Norway (WTO – CTE 1999).

the lack of co-operation between the importing and the exporting country was the major reason for concern. Second, mutual recognition can give an incentive to developing countries to create their own labelling programmes for specific goods. These labels could also be used as a marketing tool for exports. However, support and expertise from industrialised countries is important for the implementation of eco-labelling schemes (Grote et al. 1999).

To date, there is no international institution that co-ordinates ecological labelling. There are, however, useful approaches and first steps. The International Organization for Standardization (ISO), for instance, elaborated general standards for labelling of products in its 14000-series. The Co-operation with the WTO is very close. According to the TBT-Agreement national standardisation shall be based on ISO-standards. Since 1991, ISO develops environmental management standards.³² Ecological labels have to be created, e.g. according to ISO 14024 (eco-seals) or ISO 14021 (self-declaration).³³ ISO-standards, however, are process-based, i.e. they prescribe procedures of label creation, and do not deal with specific environmental problems that underlie a labelling scheme.³⁴ There is another shortcoming of ISO standards. The access to and the application of standards is not guaranteed for all developing countries. This is a matter of administrative failure of companies but also of bureaucracy. This problem has been pronounced in the CTE, where some countries complained that they were not consulted on the creation of the ISO-14000 series (WTO-CTE 1998).³⁵ Furthermore, for developing countries monitoring costs are considerable. Therefore, without any technical assistance it is impossible to control standards. If ISO shall play a major role in international co-

³² A detailed description of the work of ISO is made by da Motta Veiga (2000: 57ff).

³³ For details and for other standards from the 14000-series see Mullett (1997); ISO (1999a, 1999b).

³⁴ ISO-14024 for example states how products that are subject to labelling should be chosen, how criteria and product characteristics should be determined, what kind of procedure for evaluation and compliance with criteria should be chosen (ISO 1999a,b).

³⁵ Egypt made the following claims a) developing countries must participate when standards are developed, b) they should be equipped with technical devices necessary to improve environmental measures, c) harmonisation and mutual recognition of ecological labels have to be enforced, while attention has to be paid to the problem of extraterritorial application of national standards (WTO-CTE 1999).

operation on ecological labelling, the creation of standards by ISO has to be complemented by guidelines on ecological needs and technical assistance to developing countries.³⁶

Both ecological criteria and technical help are considered by the Eco-labelling Network (GEN). GEN is a confederation of national eco-labelling organisations and works on suggestions for mutual recognition, international harmonisation and co-ordination of labels. There are 22 members which represent over three quarters of all governmental environmental labelling programmes world-wide (GEN 1998). The GEN is still at the beginning of its work programme on international co-ordination³⁷. New members can apply for technical assistance under the Technical Assistance Program if they plan to implement new labelling programmes. A stronger consideration of the GEN by the WTO is important, e.g. GEN-experts could advise in cases of disputes on ecological contents of labelling programmes.

Another institution for international co-ordination is the United Nations Environmental Program (UNEP). It could register or even try to co-ordinate international labelling activities. UNEP could address particularly developing countries which still face severe problems with labelling requirements made by industrialised countries.

Last but not least, there are initiatives to harmonise labels for specific products, so-called single-subject labels, which are performance-based. The world-wide application of only one label for timber and timber products was introduced in 1993 by the Forest Stewardship Council (FSC) (Michaelowa 1997). Until 1998, roughly eight million hectares of forests world-wide were certified (WWF 1998). Also with respect to this type of schemes it should be discussed whether UNEP could play a role as co-ordinator.

³⁶ E.g. *Consumers International*, a non-governmental organisation with 260 consumer groups from 112 countries, argues that the technical expertise of ISO is not in environmental issues and that due to its administrative structure environmental and consumer groups cannot participate throughout the course of standards development (WTO – CTE 2000).

³⁷ http://www.gen.gr.jp/activities_03.thml

5 Summary

Ecological labelling programmes are an environmental policy instrument, which is applied in a rising number of countries. Labels, however, that use production methods as a criterion for differentiation and discrimination of products have a potential for conflicts between trade partners. The idea to differentiate products on the basis of production methods contradicts WTO-rules - specifically the interpretation of the term "like products" – if product characteristics are not affected. Thus, criteria for ecological labels can be split into product-related and non-product related standards for production methods. An investigation of WTO-rules shows that non-product-related criteria are not explicitly dealt with. The WTO dispute settlement bodies would have to decide case by case whether or not these criteria are allowed. Exceptions from basic GATT principles are made in Article XX GATT and in parts of the TBT-Agreement. The probability that exceptions can be claimed by a country using eco-labels depends on how the label is implemented (compulsory, voluntary) and on the character of the implementing body (governmental, private).

There are several results with respect to future improvement of the relationship between eco-labels and the trade regime. First, a definition of the term "like products" is neither adequate nor efficient. Second, it became clear that neither explicit integration of rules on ecological labelling into the WTO-legal system nor the obligation to apply the Code of Good Practice of the TBT-Agreement are appropriate to create international co-ordination and co-operation in this field. Also, one has to consider that eco-labelling up to date is a tool that is used mostly by industrialised countries. Therefore, there is no majority within the WTO that would be interested in such a change. Third, there are other international institutions that either already take care of the relevant standards or could be strengthened to do so in the future. The most important institution is the International Organization for Standardization (ISO), which already works on standards for eco-labelling procedures. ISO, however, does not have much

competence in ecological issues. Therefore, initiatives for multiple and single subject labelling co-ordination (e.g. the Global Eco-labelling Network GEN) need support, because they do not only deal with the standard setting but also with the underlying ecological problems. A close interaction of these institution with the WTO would help to reduce potential conflicts between trade policy and labelling. Also UNEP could play an important role for the promotion of transparency of world-wide eco-labelling activities.

The EU-suggestion to clarify the relationship between non-product-related standards on processes and production methods and WTO-rules and the suggestion to ensure that there is scope for the international use of ecological labels needs further discussion. The qualifications made here need to be considered. Whether there will be a need for future regulation of eco-labels in the world trade system depends on the frequency and scope of application. The pressure to find a regulation under WTO-law will increase if labels become more relevant for market shares, i.e. if labels increasingly determine how consumers will direct their demand. Furthermore, there is a tendency towards compulsory instead of voluntary labelling for certain products (e.g. genetically modified food, BSE-tested beef). This will put additional pressure on trade relations if new discriminatory effects from non-product-related standards arise.

6 References

- Althammer, W.; F. Biermann, S. Dröge and M. Kohlhaas; (2001); Ansätze zur Stärkung der umweltpolitischen Ziele in der Welthandelsordnung; Analytica; Berlin; forthcoming
- Altemöller, F.; (1998); Handel und Umwelt im Recht der Welthandelsorganisation WTO; Umweltrelevante Streitfälle in der Spruchpraxis zu Article III und XX GATT; Peter Lang Verlag; Frankfurt a.M.
- Biermann, F.; (1999); Internationale Umweltverträge im Welthandelsrecht. Zur ökologischen Reform der Welthandelsorganisation anlässlich der geplanten "Millenniumsrunde"; WZB Arbeitspapier FS II 99-403; Berlin
- Chang, S. W.; (1997); GATTing a Green Trade Barrier Eco-Labeling and the WTO Agreement on Technical Barriers to Trade; *Journal of World Trade* 31 (1); 137-159
- Cone, S. M.; (1999); The Appellate Body, the Protection of Sea Turtles and the Technique of "Completing the Analysis"; *Journal of World Trade* 33 (2); 51-61
- EPA – Environmental Protection Agency; (1998); Environmental Labelling Issues. Policies and Practices World-wide; EPA 742-R-98-009; Washington D.C.
- European Commission; (1999); The EU Approach to the WTO Millennium Round; Brussels
- GEN – Global Ecolabelling Network; (1998); GEN Annual Meeting 1998; *GENews* 6; Japan Environmental Association; Tokyo
- GATT; without further details refers to GATT (1994)
- GATT; (1994); General Agreement on Tariffs and Trade. Annex 1A to the Final Act Embodying the Results of the Uruguay Round; Marrakesh; 15 April 1994; (Includes GATT (1947); as well as modifications, side agreements and a protocol); Geneva
- GATT - Tuna Panel; (1991); United States Restrictions on Imports of Tuna. Report of the Panel; Submitted to the Parties on 16 August 1991; (GATT-Doc. DS21/R); *International Legal Materials* 30; 1594
- Greenpeace International; (1999); Safe Trade in the 21st Century. A Greenpeace Briefing Kit Prepared by the Center for International Environmental Law (CIEL) and Greenpeace International; The Netherlands

- Grote, U.; A.K. Basu and N.H. Chau; (1999); The International Debate and Economic Consequences of Eco-Labeling; ZEF-Discussion Papers on Development Policy No. 18/99; Zentrum für Entwicklungsforschung; Bonn
- ISO; (1999a); Environmental labels and declarations – Type II environmental labelling – self-declared environmental claims; Final Draft ISO/FDIS 14021
- ISO; (1999b); Environmental labels and declarations - Type I environmental labelling - Principles and procedures; 1st edition ISO 14024; reference no. ISO 14024:1999(E)
- Jha, V. and S. Zarrilli; (1994); Eco-Labeling Initiatives as Potential Barriers to Trade; *Organisation for Economic Co-Operation and Development (Ed.)*; (1994); Life-Cycle Management and Trade; Paris; 64-76.
- Karl, H. and C. Orwat; (1999); Economic Aspects of Environmental Labelling; *The International Yearbook of Environmental and Resource Economics 1999/2000*; Edward Elgar; Cheltenham; 107-170
- Mattoo, A. and H.V. Singh; (1994); Eco-Labeling: Policy Considerations; *Kyklos* 47 (1); 53-65
- Michaelowa, A.; (1997); Trade and Labelling of Timber and Timber Products; *Aussenwirtschaft* 52 (4); 561-581
- Da Motta Veiga, P.; (2000); Environment-related Voluntary Market Upgrading Initiatives and International Trade: Eco-labelling Schemes and the ISO 14000 Series; in: Tussie, D. (Ed.); (2000); The environment and international trade negotiation: developing country stakes; Basingstoke, Hampshire; Macmillan; 53-91
- Mullett, G.; (1997); ISO 14000: Harmonizing Environmental Standards and Certification Procedures Worldwide; *Minnesota Journal of Global Trade* 6; 379-400
- Murray, P.C.; (1997); The international environmental management standard ISO 14000: a nontariff-barrier or a step to an emerging global environmental policy?; *University of Pennsylvania Journal of International Economic Law* 18 (2); 577-615
- Nissen, J. L.; (1997); Achieving a Balance Between Trade and the Environment; *Law and Policy in International Business* 28 (3); 901-928
- Organisation for Economic Co-operation and Development; (1997); Eco-Labeling: Actual Effects of Selected Programmes; OECD/GD(97)105; Paris
- Ottman, J.; (1998); The debate over eco-seals: Is self-certification enough?; *Marketing News* 32 (5); 7-9

- Sucharipa-Behrmann, L.; (1994); Eco-Labeling Approaches for Tropical Timber: The Austrian Experience; *Organisation for Economic Co-Operation and Development* (Ed.); (1994); Life-Cycle Management and Trade; Paris; 55-58
- TBT-Übereinkommen; (1994); Agreement on Technical Barriers to Trade; Annex 1A to the Final Act Embodying the Results of the Uruguay Round; Marrakesch; 15 April 1994
- Tietje, C.; (1995); Voluntary Eco-Labeling programmes and Questions of State Responsibility in the WTO/GATT Legal System; *Journal of World Trade* 29; 123 – 157
- UNCTAD; (1994); Eco-labeling and market opportunities for environmentally friendly products; Report of the UNCTAD secretariat (TD/B/WG.6/2); Geneva
- UNCTAD; (1995); Trade, Environment and Development, Aspects of Establishing and Operating Eco-Labeling Programmes; Report of the UNCTAD secretariat (TD/B/WG.6/5); Geneva
- WTO - Alcoholic Beverages Panel; (1996); Report of the Panel; Japan - Taxes on Alcoholic Beverages (WT/DS8/R, WT/DS10/R, WT/DS11/R); 11.7. 1996
- WTO - Appellate Body; (1998a); EU Measures Concerning Meat and Meat Products (Hormones); Report of the Appellate Body AB-1997-4 (WT/DS26/AB/R, WT/DS48/AB/R); 16. Januar 1998
- WTO - Appellate Body; (1998b); United States - Import Prohibition of Certain Shrimp and Shrimp Products; Report of the Appellate Body AB-1998-4 (WT/DS58/AB/R); 12. Oktober 1998
- WTO – CTE; (1997); Bulletin No. 18; (PRESS/TE/018)
- WTO – CTE; (1998); Bulletin No. 23; (PRESS/TE/023)
- WTO – CTE; (1999); Bulletin No. 28; (PRESS/TE/028)
- WTO – CTE; (2000); Information Relevant to the Consideration of the Market Access Effects of Eco-Labeling Schemes; Note by the Secretariat; 29 June 2000; (WT/CTE/W/150)
- WTO- CTE Document; (1998); Environmental Labels and Market Access: Case Study on the Colombian Flower-Growing Industry; Document from Colombia presented to the Committee on Trade and Environment and Committee on Technical Barriers to Trade; 9 March 1998; (WT/CTE/W/76; G/TBT/W/60)

WTO - Trade and Environment Division; (1999); High-Level Symposium on Trade and the Environment; Geneva; 15-16 March 1999; Background Document; (http://www.wto.org/hlms/tr_envbadoc2.doc)

WWF – World Wildlife Fund; (1998); Der Forest Stewardship Council; (http://www.wwf.de/c_kampagnen/c_wald)